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Activities at KUYBYSHEVDevelopment work

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(a)

development work to raise the thrust produced by the 003 engine to 1,000 kg.

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(b) One complete BMW 018 engine had been crated and brought from STASSFURT to KUYBYSHEV for testing, but work on this unit ended when the turbine nozzles and blades were damaged by gas erosion.

(c)

engaged on parallel work with the Ju 012 which was to be developed to produce a static thrust of 3,000 kg.

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The 022 Engine

the 022 engine was known to the Russians under the designation "Objekt A", though it was invariably referred to by the German technicians as the 022. When it first appeared on the test bed this engine developed 5,000 h.p. and had a specific fuel consumption of 320 gm/h.p./hr. twelve such engines were built with contra-rotating propellers for static testing.

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Later engines of the 022/"Objekt A" series developed 6,250 h.p. for a specific fuel consumption of 245 gm/h.p./hr. A modification in the later series was the substitution of a single four-bladed propeller for the contra-rotating propellers previously used. Commenting on the appreciable reduction in the S.F.C., the later series had an improved compressor which resulted in increased efficiency. The air mass flow was approximately 30 kg/sec.

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"Objekt M" (Two "Objekt A" units coupled)

As static tested at KUYBYSHEV, the "Objekt M" developed 12,500 h.p. with the same S.F.C. as recorded for the final "Objekt A" series, i.e. 490 gm/h.p./hr. for the two engines of the 'M' unit.

"Objekt K"

This was a turbo-prop project referred to as the "Objekt K", or more simply the 'K' engine, designed to produce 12,500 h.p. Water brake tests were satisfactorily concluded and the engine began its airscrew tests in May of that year. Though the design office had envisaged a specific fuel

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consumption of 170 gm/h.p./hr. this figure had not been reached [redacted]  
[redacted] By increasing the engine speed  
to 8,200 r.p.m. and using an enlarged compressor (14-stage) the air mass  
flow was increased to 60 kg/sec. compared with the 30 kg/sec. of the "Objekt A".

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